UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,895	02/04/2004	Amit Dagan	42P10813C	5362

7590 08/31/2006

Marina Portnova
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025

EXAMINER	
NAMAZI, MEHDI	

ART UNIT	PAPER NUMBER
2189	

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/772,895	DAGAN ET AL.	
	Examiner	Art Unit	
	Mehdi Namazi	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6,8-10,12-15 and 17-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,8-10,12-15 and 17-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *02/04/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to application filed on February 4, 2004.

Response to Arguments

Applicant's arguments filed February 4, 2004 have been fully considered but they are not persuasive. Examiner disagrees with Applicant's argument because:

With regard to Applicant's arguments to Rejection Under 102 (a) that AAPA does not teach ("a bit-level interleaving of the first stream of data and the second stream of data to generate a combined stream of data."). Examiner point out to specification pages 10-11, lines 16-19, and 24-1, and Fig. 5 wherein, processing blocks 510-526 are preformed to interleave bit 0 of the first data stream (stored in register R1) and bit 0 of the second data stream (stored in register R2), and R6 stores the resulting stream of interleaved bits.

With regard to Applicant's arguments to Rejections Under 103(a), examiner disagrees with Applicant's arguments because AAPA teaches the limitations of independent claims 1, 9, and 13 ("a bit-level interleaving of the first stream of data and the second stream of data to generate a combined stream of data".) as stated in above paragraph, and AAPA in view of Romano teaches "a 16-bit shift register in order to capture incoming data stream for detecting the encoded transition." To satisfy the limitations of claims 5, 12, and 17.

Information Disclosure Statement

The information referred to in the IDS filed February 4, 2006 has been considered in accordance with MPEP 609.02. However, if applicant wants the information listed on the front of the patent, then Applicant should submit a new PTO-1449.

Specification

*The specification lacks necessary **updated information** with regard to the prior applications. A statement reading "This is a of application No.xxxxxxx, filed xxxxxx, now U.S. Patent xxxxxx." Should be entered following the title of the invention or as the first sentence of the specification.*

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 recites the limitation " the destination register, the first source processor, and the second source processor" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 3, 5, 6, 8, 9, 10, 12-15, and 17-19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,760,822.

A question of patentability is raised with respect to representative claim 1 of the instant application under the judicially doctrine of "obviousness-type" double patenting with respect to U.S. Patent No. 6,760,822.

More specifically, OPQR maintains that in view of the "obviousness-type" double patenting rationale enunciated in Georgia pacific Corp v United States Gypsum Co., 52 USPQ2d 1590, U.S. Court of Appeals Federal Circuit 1999, representative claims 1 and

4 merely define an obvious variation of the invention claimed in US Patent number 6,760,822.

Initially it should be noted that the present application is related to Patent No. 6,760,822 having the same inventive entity. The Assignee for both applications is Intel Corporation. The entire disclosures of the both application and Patent are identical.

Claim 1, of the Patent Number 6,760,822 is compared to claim 1 of instant application in the table below.

Limitations in Pending Application (10/772,895)	Limitations in Patent No. 6,760,822
1. A computerized method comprising: identifying a first stream of data stored in first source register and a second stream of data stored in a second source register; and performing a bit-level interleaving of the first stream of data and the second stream of data to generate a combined stream of data.	**1. A computerized method comprising: identifying a first stream of data stored in first source register and a second stream of data stored in a second source register; and executing on the processor a bit-level interleaving of the first stream of data and the second stream of data to generate a combined stream of data** in destination register within the processor, wherein the execution of the bit-level interleaving instruction comprises: moving each data bit of the first stream to a corresponding

	even position of the destination register; and moving each data bit of the second stream to a corresponding odd position of the destination register.

Claims 1, 2, 3, 5, 6, 8, 9, 10, 12-15, and 17-19 of the instant application are anticipated by the Patent claims 1-16 of 6,760,822, in that claims 1-16 of that Patent 6,760,822 contain all the limitations of claims 1, 2, 3, 5, 6, 8, 9, 10, 12-15, and 17-19 of the instant application. Claims 1, 2, 3, 5, 6, 8, 9, 10, 12-15, and 17-19 of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable for obvious-type double patenting.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 9, 13, 14, and 18-19 rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art (AAPA).

As per claims 1, 9, and 18, AAPA teaches a computerized method comprising: identifying a first stream of data stored in first source register within a processor (page 10, lines 13-15, and 16-17, R1) and a second stream of data stored in a second source register within the processor (page 10, lines 13-15, and 16-17, R2); and performing on the processor a bit-level interleaving of the first stream of data and the second stream of

data to generate a combined stream of data in a destination register within the processor (page 10, line 19, R6).

As per claims 2, and 14, AAPA teaches wherein performing bit-level interleaving further comprises: receiving an interleaving instruction; and executing the interleaving instruction on the first stream of data and the second stream of data (page 10, line 19).

As per claims 3,10, and 15 AAPA teaches the combined stream of data is stored in a destination register (page 10, line 19, R6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5,12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA, and further in view of Romano et al. (US. 5,586,306).

As per claims 5, and 12, AAPA teaches the claimed invention but fails to teach each of the first stream and second stream includes 16 bits of encoded data.

Romano teaches a 16 bits shift register (col. 21, lines 1-3).

Therefore, it would have been obvious to one having ordinary skill in the art to modify the work of AAPA because Romano teaches a 16-bit shift register in order to capture incoming data stream for detecting the encoded transition.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Namazi whose telephone number is 571-272-4209. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald Bragdon can be reached on 571-272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mehdi Namazi
August 25, 2006

Reginald D. Bragdon

REGINALD BRAGDON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100